

Tucson Contract No. 0134-94
AG Contract No. KR93 2910TRN
JPA No. 93-144
ECS File No. JPA 94-44
TPD Contract No.
Project No. P2294 10P - 13P
Project: FY 94 Air Quality
Demonstration Projects

INTERGOVERNMENTAL AGREEMENT
BETWEEN
THE DEPARTMENT OF TRANSPORTATION
AND
THE CITY OF TUCSON

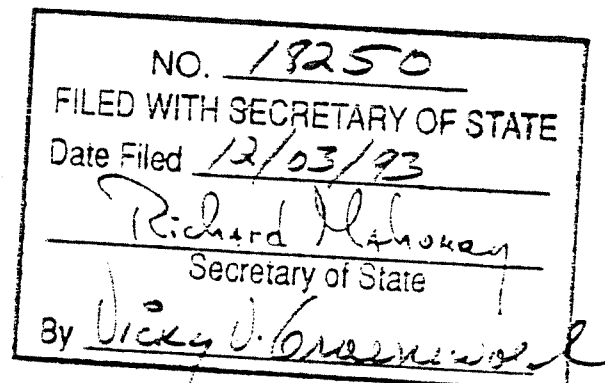
THIS AGREEMENT is entered into 3 December, 1993,
pursuant to Arizona Revised Statutes Section 11-952 through
11-954 as amended, between the ARIZONA DEPARTMENT OF
TRANSPORTATION, acting by and through it's Transportation
Planning Division (the "State") and the CITY OF TUCSON acting
by and through it's MAYOR and CITY COUNCIL (the "City").

I. RECITALS

1. The State is empowered by Arizona Revised Statutes
Section 28-108 to enter into this agreement and has by
resolution, a copy of which is attached hereto and made a part
hereof, resolved to enter into this agreement and has delegated
to the undersigned the authority to execute this agreement on
behalf of the State.

2. The City is empowered by Arizona Revised Statutes
Section 48-572 to enter into this agreement and has by
resolution, a copy of which is attached hereto and made a part
hereof, resolved to enter into this agreement and has
authorized the undersigned to execute this agreement on behalf
of the City.

3. The State and City have direct responsibilities with
respect to Transit Planning and Operations in the metropolitan
areas of the state, such as the geographical area comprised of
the City. The State and the City desire to accomplish the FY94
Air Quality Demonstration Projects as defined in the project
worksopes contained in Attachments A through D.



II. SCOPE

1. The State will:

a. On a reimbursable basis, provide the City FY94 State funding up to \$138,459.00 for work performed in accordance with Attachments A through D which are attached hereto and made a part hereof.

b. Review and approve progress of the work and retain the option to approve any and all subcontracts.

2. The City will:

a. Perform work in accordance with Attachments A through D. Comply with all applicable State and local laws, including the State procurement code. Comply with the State's accounting and record keeping procedures. Cooperate with the State to accomplish the goals of Chapter 365, Laws of 1987.

b. Permit authorized State personnel to inspect and review work on the project at reasonable times and places. Provide the State statistics on pollution reduction using the formula in Attachment E.

c. Submit invoices to the State in accordance with Attachment B, supported by narrative reports. Acknowledge the State ADOT as the funding source in all promotional materials, newsletters and press releases.

III. MISCELLANEOUS PROVISIONS

1. This agreement shall remain in force and effect until completion of the projects contemplated herein, and may be cancelled at any time upon thirty (30) days written notice to the other party.

2. This agreement shall become effective upon filing with the Secretary of State.

3. This agreement may be cancelled in accordance with Arizona Revised Statutes Section 38-511.

4. The provisions of Arizona Revised Statutes Section 35-214 are applicable to this contract.

5. In the event of any controversy which may arise out of this agreement, the parties hereto agree to abide by required arbitration as is set forth in Arizona Revised Statutes Section 12-1518.

6. All notices or demands upon any party to this agreement shall be in writing and shall be delivered in person or sent by mail addressed as follows:

Arizona Department of Transportation
Joint Project Administration
205 South 17 Avenue, Mail Drop 616E
Phoenix, AZ 85007

City of Tucson
City Manager
255 West Alameda
Tucson, AZ 85701-7210


7. Attached hereto and incorporated herein is the written determination of each party's legal counsel that the parties are authorized under the laws of this state to enter into this agreement and that the agreement is in proper form.

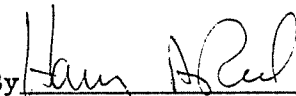
IN WITNESS WHEREOF, the parties have executed this agreement the day and year first above written.

CITY OF TUCSON

STATE OF ARIZONA

Department of Transportation

By 
GEORGE MILLER
Mayor

By 
HARRY A. REED, Director
Transportation Planning
Division

ATTEST

By 
KATHY DETRICK
City Clerk

RESOLUTION

BE IT RESOLVED on this 28th day of September 1993, that I, the undersigned LARRY S. BONINE, as Director of the Arizona Department of Transportation, have determined that it is in the best interests of the State of Arizona that the Department of Transportation, acting by and through the Transportation Planning Division, to enter into an agreement with the City of Tucson for the purpose of defining responsibilities for the implementation and operation of various bus transit services.

Therefore, authorization is hereby granted to draft said agreement which, upon completion, shall be submitted for approval and execution by the Director, Transportation Planning Division.

for Mary Petrus

LARRY S. BONINE
Director

ADOPTED BY THE
MAYOR AND COUNCIL

NOV 01 1993

RESOLUTION NO. 16456

RELATING TO INTERGOVERNMENTAL AGREEMENTS; APPROVING AND AUTHORIZING EXECUTION OF AN INTERGOVERNMENTAL AGREEMENT WITH THE STATE OF ARIZONA DEPARTMENT OF TRANSPORTATION FOR FUNDING MASS TRANSIT AIR QUALITY DEMONSTRATION PROJECTS.

BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF TUCSON, ARIZONA, AS FOLLOWS:

SECTION 1. The Intergovernmental Agreement with the State of Arizona Department of Transportation for funding mass transit air quality demonstration projects, attached hereto, is approved.

SECTION 2. The Mayor is hereby authorized and directed to execute the said Intergovernmental Agreement for and on behalf of the City of Tucson and the City Clerk is authorized and directed to attest the same.

SECTION 3. The various City officers and employees are authorized and directed to perform all acts necessary or desirable to give effect to this resolution.

SECTION 4. WHEREAS, it is necessary for the preservation of the peace, health and safety of the City of Tucson that this resolution become immediately effective, an emergency is hereby declared to exist and this resolution shall be effective immediately upon its passage and adoption.

JPA 93-144

APPROVAL OF THE CITY OF TUCSON ATTORNEY

I have reviewed the above referenced proposed intergovernmental agreement, between the DEPARTMENT OF TRANSPORTATION, HIGHWAYS DIVISION and the CITY OF TUCSON and declare this agreement to be in proper form and within the powers and authority granted to the City under the laws of the State of Arizona.

DATED this 15 day of October, 1993.

Elizabeth S. S. S.

City Attorney



ADOT Contract No. _____

STATE OF ARIZONA

OFFICE OF THE ATTORNEY GENERAL

GRANT WOODS
ATTORNEY GENERAL

1275 WEST WASHINGTON, PHOENIX 85007

MAIN PHONE : 542-5025
TELECOPIER : 542-4085

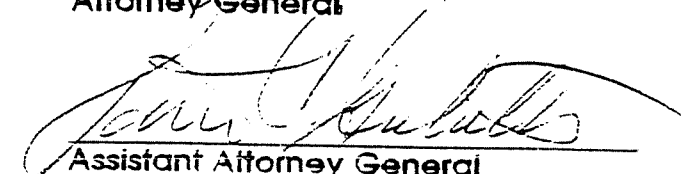
INTERGOVERNMENTAL AGREEMENT
DETERMINATION

A.G. Contract No. KR93-2910-TRN is an agreement between public agencies and has been reviewed pursuant to A.R.S. § 11-952, as amended, by the undersigned Assistant Attorney General who has determined that it is in the proper form and is within the powers and authority granted to the State of Arizona.

No opinion is expressed as to the authority of the remaining parties, other than the State or its agencies, to enter into said agreement.

DATED this 23rd day of November, 1993

GRANT WOODS
Attorney General


Assistant Attorney General
Transportation Section

ATTACHMENT A-1

1. ROUTE 28 EXTENSION

PROJECT WORKSCOPE

The contractor will be responsible for the development and operation of the following service:

Route 28 Extension bus service to serve the University of Arizona, Pima Community College West Campus, the Central Business District of Tucson and the surrounding residential area. The route is expected to carry an average of 152 passengers per day.

This project is to upgrade the service on the existing Route 28 to provide enhanced and new service to an area that is currently not served or underserved by transit. Route 28 Extension will offer peak hour service with three trips in the morning and three trips in the evening.

The bus service identified above will be implemented on July 1, 1993 and will operate through September 30, 1994. Specific objectives include:

- * Provision of cost-effective bus services to parts of west Tucson metropolitan area with limited access to mass transit.
- * Serving major activity centers and residential areas in the western Tucson region.
- * Document the impact of specific ridership levels on an incremental basis between July 1, 1993 and September 30, 1994.
- * Document the impact of measurable reductions in vehicular traffic directly related to utilization of this bus service.
- * Document the impact of measurable reduction in pollutants directly related to the operation of this bus service.

Required products and associated deadlines are identified in the Work Plan included as Attachment B-1.

ATTACHMENT A-2

2. ROUTE 29 EXTENSION

PROJECT WORKSCOPE

The contractor will be responsible for the development and operation of the following service:

Extend Route 29 two additional miles along Valencia Road to serve major activity centers in the southwest Tucson metro area and to allow transfer opportunities. The bus service extension is expected to carry 130 passengers daily on weekdays, 69 on Saturdays, and 60 on Sundays.

The bus service identified above will be implemented on December 12, 1993 and will operate through June 30, 1994. Specific objectives include:

- * Provision of cost-effective bus services to parts of west Tucson metropolitan area with limited access to mass transit.
- * Serving the major activity centers and residential areas in the southwestern Tucson region.
- * Document the impact of specific ridership levels on an incremental basis between December 12, 1993 and June 30, 1994.
- * Document the impact of measurable reductions in vehicular traffic directly related to utilization of this bus service.
- * Document the impact of measurable reduction in pollutants directly related to the operation of this bus service.

Required products and associated deadlines are identified in the Work Plan included as Attachment B-2.

ATTACHMENT A-3

3. BIKE RACKS ON BUSES

PROJECT WORKSCOPE

The contractor will be responsible for the development and operation of the following service:

Expand the City of Tucson's Bike on Bus program by installing 43 front-end bicycle racks on buses for five Sun Tran bus routes. Goal: 382 passengers per weekday systemwide.

The bicycle racks are to be installed and made operational by February 1994, and monitoring of usage to last through September 30, 1994. Specific objectives include:

- * Attainment of cost-effective bicycle racks on buses expanding the existing fleet of bike racks on buses.
- * Document the impact of measurable reductions in vehicular traffic directly related to utilization of the bicycle racks.
- * Document the impact of measurable reduction in pollutants directly related to the operation of the bicycle racks.

Required products and associated deadlines are identified in the Work Plan included as Attachment B-3.

ATTACHMENT A-4

4. BIKES AND TRANSIT WEEK PROMOTION

PROJECT WORKSCOPE

The contractor will be responsible for the development and operation of the following service:

Conduct a high profile public relations campaign aimed at the entire Tucson metropolitan area to educate and inform the public that bicycling is a reasonable alternative to the automobile. The promotion will involve a week long series of activities to encourage the intermodal use of bicycles and transit to commute. The promotion will focus on the use of bicycle lockers and racks at transit stops, and bicycle racks on buses. Goal: 400 new bicycle commuters.

The bicycle and transit promotional activities are expected to be implemented during March 1994. Specific objectives include:

- * Cost effective promotional activities to increase use of transit ridership through the use of bicycle racks on buses and bicycle lockers and racks at transit stops.
- * Document the impact of measurable reductions in vehicular traffic directly related to the promotion of bicycles and their interface with transit.
- * Document the impact of measurable reduction in pollutants directly related to the promotion of bicycles and their interface with transit.

Required products and associated deadlines are identified in the Work Plan included as Attachment B-4.

ATTACHMENT B-1

ROUTE 28 EXTENSION - WORK PLAN

July 1, 1993

City to begin operation of Route 28 Extension

February 1, 1994

City to submit progress report and billing to ADOT Transit Branch Manager. Progress report will describe daily ridership, percent of ridership goal of 152 per day achieved, costs per operating mile, and reduction in pollutants and vehicular traffic directly related to the operation of this service.

June 30, 1994

~~JUNE 30, 1994~~

City to submit to ADOT within 30 days final progress report and billing. The final report will have a format explained in Attachment D.

ATTACHMENT B-2

ROUTE 29 EXTENSION - WORK PLAN

October 1, 1993	City to begin operation of Route 29 Extension.
February 1, 1994	City to submit progress report and billing to ADOT Transit Branch Manager. Progress report will describe daily ridership, percent of ridership goal of 130 per weekday, 69 per Saturday, and 60 per Sunday achieved, costs per operating mile, and reduction in pollutants and vehicular traffic directly related to the operation of this service.
June 30, 1994	City to submit to ADOT within 30 days final progress report and billing. The final report will have a format explained in Attachment D.

ATTACHMENT B-3

BIKE RACKS ON BUSES - WORK PLAN

October 1, 1993	City to begin planning activities for the installation of 43 bike racks on buses.
February 1, 1994	City to submit progress report and billing to ADOT Transit Branch Manager. Progress report will describe selected routes to be served by the racks, and a timeline for the racks' installation.
June 1, 1994	Progress report and billing. Progress will describe feasibility and compatibility of bike racks on designated buses; input on scheduling delays; safety of the project, levels of occupancy of bicycle racks, reduction in vehicular traffic and pollutants resulting from the operation of the racks.
September 30, 1994	Submittal to ADOT within 30 days final progress report and billing. The final report to be in a format explained in Attachment D.

ATTACHMENT B-4

BIKES AND TRANSIT WEEK PROMOTION - WORK PLAN

October 1, 1993	City to begin planning activities for promotion activities.
February 1, 1994	City to submit to the ADOT Transit Branch Manager progress report and billing. The progress report will document activities on the development of the promotion campaign to encourage the intermodal use of bicycles and transit including a timeline for the campaign.
June 30, 1994	Submittal to ADOT within 30 days final progress report and billing. The final report to be in a format explained in Attachment D.

ATTACHMENT C-1

ROUTE 28 EXTENSION - PROJECT BUDGET

ADOT's Cost Per Unit of Service (Passenger Trips)	\$2.22
Total Number of Passengers During Contract Period	39,216
Total ADOT Cost Not to Exceed	\$87,033

Funding Sources by Source/Amount

ADOT Air Quality Fund	\$87,033
Farebox	\$13,333
Total	\$100,366

ATTACHMENT C-2

ROUTE 29 EXTENSION - PROJECT BUDGET

ADOT's Cost Per Unit of Service (Passenger Trips)	\$.82
Total Number of Passengers During Contract Period	22,304
Total ADOT Cost Not to Exceed	\$18,365

Funding Sources by Source/Amount

ADOT Air Quality Fund	\$18,365
Farebox	\$ 7,583
Total	\$25,948

ATTACHMENT C-3

BIKE RACKS ON BUSES - PROJECT BUDGET

ADOT's Cost Per Unit of Service (Bike rack)	\$ 600
Total Number of Bike Racks During Contract Period	43
Contingency Fund	\$ 67
Total ADOT Cost Not to Exceed	\$28,061

Funding Sources by Source/Amount

ADOT Air Quality Fund	\$28,061
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ATTACHMENT C-4

BIKES AND TRANSIT WEEK PROMOTION - PROJECT BUDGET

ADOT's Cost Per Unit of Service (Passenger Trips)	\$ 12.50
Total Number of Passengers During Contract Period	400
Total ADOT Cost Not to Exceed	\$ 5,000

Funding Sources by Source/Amount

ADOT Air Quality Fund	\$ 5,000
Pima County	\$ 5,000
Greater Arizona Bicycling Assoc.	\$ 1,000
Total	\$ 11,000

ATTACHMENT D

FINAL PROGRESS REPORT FORMAT

- A. Summary of activities of demonstration project.
- B. Monthly reductions in SOV'S (single occupant vehicles) resulting from the project with corresponding reduction in vehicle miles.
- C. Monthly reductions in pollutants (Pollution Calculation Formula attached) resulting from the project.
- D. Projected monthly reductions in SOV's and vehicle miles for one year following project.
- E. Projected monthly reductions in pollutants for one year following the project.
- F. Ridership data including groups of people served by the project, employers, geographic area and activity centers.
- G. Self-sufficiency potential for local commitment following project.
- H. Assessment of success or failure of the project.

APPENDICES

Any photographs, maps, brochures, and related supportive documentation would be welcomed and desirable.

ATTACHMENT E

Pollution Calculation Formula

The method to compute the pollution reduction includes the following steps:

First, calculate the number of fewer cars on the road resulting from this project. The formula to arrive at this figure is to divide the projected ridership (bus, car/vanpool) by the Average Vehicle Occupancy (AVO). *

$$\text{Number of Fewer Cars} = \text{Projected Ridership} \div \text{AVO}$$

Secondly, calculate the number of miles not driven due to the project. This is done by multiplying the number of fewer cars by the average distance of each type of trip (bus, car/vanpool). **

$$\text{Number of miles not driven} = (\text{No. of fewer cars}) \times (\text{Average trip length} - \text{bus, car/vanpool})$$

Thirdly, calculate the reduction in carbon monoxide, nitrogen oxides and hydrocarbons. This is done by multiplying the number of miles not driven by emissions of the pollutant per mile which are: ***

Carbon Monoxide (CO):	11 gms/mile
Nitrogen Oxide (NOX):	2.22 gms/mile
Hydrocarbons (NMHC):	3.00 gms/mile

$$\text{Reduction of pollutant} = (\text{No. of miles not driven}) \times (\text{Emissions of pollutant per mile})$$

The unit of measurement for the above pollution reduction is in grams. To convert grams into pounds, divide the reduction in grams by 453.59; to convert into tons, divide the reduction in pounds by 2000.

Notes

- * The Average Vehicle Occupancy (AVO) will vary according to locality.
- ** The average distance for each bus trip will vary depending on type of bus, service and locality. The average length of trip for car/vanpool will vary according to locality.
- *** Source: Arizona Department of Environmental Quality